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A NEW COTTON RAT (GENUS SIGMODON) FROM
MORELOS, MEXICO

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The Texas Cooperative Wildlife Collection of the Agricultural and Mechanical College of Texas contains a small series of adult cotton rats, *Sigmodon hispidus*, from the Mexican State of Morelos. Previously, only immature specimens of this species were known from Morelos and these were referred to *Sigmodon hispidus mascotensis* Allen (see Bailey, Synopsis of the North American Species of *Sigmodon*. Proc. Biol. Soc. Washington, 15:101-116, 1902). Examination of near-topotypes of *Sigmodon h. mascotensis* from northern Jalisco and southern Nayarit, as well as representative specimens of other adjacent subspecies reveals that the cotton rat of Morelos belongs to an heretofore unrecognized subspecies for which I propose the name

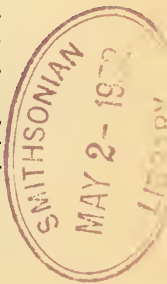
Sigmodon hispidus obvelatus new subspecies

Type. Adult female, skin and skull, no. 4921, Texas Cooperative Wildlife Collection, Agricultural and Mechanical College of Texas; 5 miles S Alpuyecá, 3700 feet, Morelos, Mexico; collected by W. T. Smith, August 16, 1949, original no. 38.

Distribution. Known from several localities in eastern and western Morelos; probably occurs in the adjacent arid sections of Guerrero and Puebla. Limits of range unknown.

Diagnosis. Size medium for species (see measurements); tail long; hind foot small. Color: Pale, upper parts near Light Ochraceous-Buff (capitalized color terms after Ridgeway, Color Standards and Color Nomenclature, Washington, D. C., 1912) washed with black; under parts creamy-white, almost obscuring the Plumbeous bases of the ventral hairs; creamy-white extending over underside of legs; hind foot whitish above; front foot buffy above; nose yellowish. Skull: Medium in size, narrow, shallow, delicately constructed, and lightly ridged; nasals relatively long; auditory bullae small; interpterygoid fossa wide anteriorly and constricted posteriorly; anterior palatine foramina parallel sided, not constricted posteriorly; interparietal convex posteriorly; molar teeth actually and relatively small; interorbital constriction relatively wide.

Comparisons. From *S. h. mascotensis*, which I judge to be the most closely related subspecies, *S. h. obvelatus* differs as follows: Body smaller (total length averaging 292 as compared with 325); color slightly paler above and more nearly white below, especially paler facially; hind foot whitish rather than buffy and smaller (length 33 as compared with 38); skull smaller (greatest length averaging 35.6 as compared with 38.1), shallower, especially in orbital region, more delicate in structure; zygomatic breadth less (19.3 as compared with 21.1); auditory bullae actually and relatively smaller; molar teeth actually and relatively smaller;



anterior palatine foramina shorter (7.9 as compared with 8.7); hard palate shorter and narrower.

From *S. h. berlandieri*, which occurs to the north, *S. h. obvelatus* differs as follows: Tail much longer; color of upper parts less pinkish; under parts more heavily washed with white; tail darker above; skull narrower, more delicate in structure, and less heavily ridged; zygomatic breadth less; interpterygoid fossa wider; rostrum narrower; interparietal convex posteriorly rather than straight; interorbital construction relatively broader.

From *S. h. inexoratus*, which occurs to the northwest, *S. h. obvelatus* differs as follows: Body larger (total length averaging 292 as compared with 268); tail longer and less densely haired; color of upper parts paler (not so blackish); skull longer (greatest length 35.6 as compared with 33.3); maxillary arm of zygoma longer and more decurved; interpterygoid fossa wider; anterior palatine fordlamina parallel-sided, not constricted posteriorly; hard palate shorter.

Close comparison with *S. h. toltecus*, which occurs to the east, is not necessary; however, *S. h. obvelatus* differs as follows: Body larger; tail longer; hind foot longer (33 as compared with 29); color of upper parts paler; under parts more whitish; skull larger and deeper; interpterygoid fossa much wider; molar teeth larger; auditory bullae larger.

Measurements. The type followed by an adult male (in parentheses) from Jonacatepec: Total length, 295 (288); length of tail, 147 (132); length of hind foot, 34 (35); greatest length of skull, 36.0 (35.2); zygomatic breadth, 19.1 (—); length of nasals, 14.5 (13.8); interorbital breadth, 5.5 (5.4); breadth of braincase, 14.0 (14.2); depth of braincase, 14.1 (13.5); length of palatine foramina, 8.1 (7.7); length of hard palate, 6.0 (6.3); length of molar tooth-row, 6.5 (6.6).

Specimens examined. Four, all from Morelos, as follows: 5 mi. S Apuyeca, 2; 6 mi. W Yautepec, 1; 2 km. S Jonacatepec, 1.

Remarks. *S. h. obvelatus* inhabits the arid lowlands of Morelos, which are distinguished by a peculiar arid tropical scrub vegetation and heavy soils. This area is a part of the Rio Balsas drainage, and is bounded on the north by the high transverse volcanic mountains that form a barrier to the distribution of *Sigmodon hispidus*.

S. h. atratus Hall is here regarded as a synonym of *S. h. inexoratus* Elliot. Dr. E. Raymond Hall has compared the two subspecies and informed me that they are identical. He unfortunately overlooked *S. h. inexoratus* when he prepared his description of *S. h. atratus*.

It should be noted that *S. h. mascotensis* is actually larger in size of both body and skull than previously reported. The adult specimens of this subspecies used for comparisons here are larger than those referred to in Bailey's account (*loc. cit.*) of *S. h. mascotensis*. Bailey mentions one "very large" specimen from Querendaro, Michoacan. *S. h. mascotensis* approaches *S. h. major* in size; however, the two subspecies are easily separated by cranial characteristics.

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